

# Drought in the NW Climate Hub Region

In Alaska, abnormally dry conditions (D0-yellow) remain across most of the Seward Peninsula, and moderate drought has been alleviated due to recent storms. Abnormal dryness (D0-yellow) persists on Kodiak Island and the Kenai Peninsula, and extends westward to the McCarthy area.

Recent storms brought significant rainfall to parts of Oregon and Washington, leading to some improvements in drought conditions. In Oregon, areas in extreme drought (D3- red) have improved, however severe (D2- orange) and moderate (D1-tan) drought conditions west of the Cascades persist. In southern Washington, areas of extreme (D3-red) and severe (D2- orange) drought have improved slightly. Similarly, large areas of moderate drought (D1-tan) across southern Washington improved to abnormally dry (D0-yellow).

The Idaho panhandle saw improvement since last month, with abnormally dry conditions (D0-yellow) remaining only in the western portion. Drought status throughout the remainder of the state remains mostly unchanged, with a "bullseye" of extreme (D3-red), severe (D2- orange), and moderate drought (D1-tan) persisting in the middle of the state.

Drought maps are published every Thursday. Get information about the National Integrated Drought Information System (NIDIS), submit data via the Community Collaborative Rain, Hail and Snow (CoCoRHaS) network, or report drought impacts and observations by clicking icons below.

## U.S. Drought Monitor

# USDA Northwest Climate Hub

**November 17, 2020**  
(Released Thursday, Nov. 19, 2020)  
Valid 7 a.m. EST

|   | Drought Conditions (Percent Area) |       |      |      |      |      |
|---|-----------------------------------|-------|------|------|------|------|
|   | None                              | D0    | D1   | D2   | D3   | D4   |
| <b>Current</b>                              | 70.69                             | 16.04 | 4.00 | 5.08 | 4.19 | 0.00 |
| <b>Last Week</b><br>11-10-2020              | 69.88                             | 15.73 | 4.79 | 4.54 | 5.06 | 0.00 |
| <b>3 Months Ago</b><br>08-18-2020           | 77.96                             | 10.24 | 4.26 | 5.63 | 1.92 | 0.00 |
| <b>Start of Calendar Year</b><br>12-31-2019 | 70.58                             | 22.31 | 7.10 | 0.00 | 0.00 | 0.00 |
| <b>Start of Water Year</b><br>09-29-2020    | 61.33                             | 22.98 | 6.22 | 4.96 | 4.51 | 0.00 |
| <b>One Year Ago</b><br>11-19-2019           | 93.81                             | 5.61  | 0.58 | 0.00 | 0.00 | 0.00 |

Intensity

|   |  |
|---|--|
| <p>None</p> <p>D0 Abnormally Dry</p> <p>D1 Moderate Drought</p> | <p>D2 Severe Drought</p> <p>D3 Extreme Drought</p> <p>D4 Exceptional Drought</p> |
|---|--|

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

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## Going With the Flow: Beaver-focused Stream Restoration on Western Rangelands

A new story map from the Northwest Climate Hub addresses the complexities of beaver-related stream restoration in the West. Find videos, resources, and summaries of five case study examples of stream restoration efforts in Idaho, Oregon, Nevada, and California led by the US Forest Service, private landowners, and other partners.

Find more information about stream erosion challenges and restoration options here.

## Information

**The Pacific Northwest Research Station Research Framework Update.** The Pacific Northwest Research Station is changing its approach to the planning and application of research. The new Research Framework focuses on collaboration and long-term planning that engages partners and stakeholders early and continuously to better meet their needs. Check out two of the latest research initiatives underway that are both related to climate change.

**West-Side Fire Research Initiative**      **Carbon Dynamics Research Initiative**

**Historic Drought in a Rainforest, Southeast Alaska (2017-2019).** Check out this map journal that lays out the impacts of recent historic drought in Southeast Alaska. The evolution and unique characteristics of drought are covered.

**A Town with a Plan: Community, Climate, and Conversations.** Much can be learned across communities about adaptation planning processes. Click here to learn more about how and why Homer, Alaska is re-engaging in conversations about climate change adaptation ten years after its initial formal mitigation planning processes.

**Outcome-based Management for Western Rangelands: Using Experience & Need to Help Manage for Fire.** Climate change is an important contributor to the increasing fire activity on rangelands. Check out this blog post about how Idaho ranchers and the Bureau of Land Management have worked toward adding flexibility to grazing permits through the development of an outcome-based grazing management program that aims to both maximize benefits to ranchers, and reduce fire fuels on the landscape when and where it's appropriate.

**Small Scale Droughts Limit Sagebrush Recovery After Wildfires.** Research supported by Climate Adaptation Science Centers investigated the role of small-scale ecological droughts on post-fire sagebrush recovery in the Great Basin. Results indicated that daily soil-water availability measurements in March, during the germination window, was a strong predictor of sagebrush regrowth, while monthly drought measurements were not. The implications indicate that water scarcity over short time periods can dramatically decrease plant seeding survival after fire.

**University of Idaho Extension Fort Hall Develops and Provides Russian Olive Management Program.** Russian olives are one of the most significant invasive trees in the West and a growing problem in southern Idaho. The trees reduce water tables and native species as well as provide low-quality forage and poor wildlife habitat. Russian olive spreads prolifically and may be more difficult to manage as climate conditions change.

Fact Sheet: Different Treatment Options for Russian Olive by UI Extension

**Forest and Rangeland Soils of the United States Under Changing Conditions: A Comprehensive Science Synthesis.** A synthesis of science and management information about forest and rangeland soils of the United States. The book explores directions that positively affect the future of forest and rangeland soil health, outlines soil processes and identifies needed research. The effects of climate change, severe wildfires, invasive species, pests and diseases, pollution, and land use change are considered. It also addresses ideas for capitalizing and sharing existing information to facilitate mitigation and adaptation processes.

**Crowded and Thirsty: Fire Exclusion Leads to Greater Drought Sensitivity in Mixed-Conifer Forests.** The latest issue of Science Findings summarizes recent research on the relationship between fire suppression and drought sensitivity. Researchers tested how individual trees in a mixed-conifer forest in the Deschutes National Forest responded to the exclusion of wildfire and concluded that thinning and prescribed fire are key to drought resilience in these forests as the climate changes.

## Podcast Highlight

**Utilities of the Future, Today: How Public Utilities are Pioneering Climate-Smart Infrastructure.** This episode of the Climate Ready podcast discusses how public utilities are coping with the combined challenge of growing demand and a changing climate by capitalizing on "green infrastructure." The focus on natural resources and conservation can be applied to rural and urban areas across the Northwest.

## Webinars & Trainings

**FIRE x FAUNA Wildfire and Prescribed Fire Effects on Wildlife, 19 & 20 November.** This webinar series highlights the latest science on fire and wildlife. Sessions are intended for land managers, but anyone interested is welcome.

**19 November 11 am-12 pm PST,** Mammals, Birds x Fire in Western Forests. The second of three talks for this session will address effects of fire on small mammal communities of the Pacific Northwest from Todd Wilson, a Wildlife Biologist with the Forest Service PNW Research Station.

**20 November 11 am -12 pm PST,** Where There's Smoke There's Fire. The first two talks of this session address cannabis cultivation and issues related to fire, while the last discusses the cooling benefits of smoke to streams.

**Small Farm School 2020, Tuesdays & Thursdays September-November.** Small Farm School is virtual this year and open to beginning and experienced farmers and small-acreage landowners. Topics will be introduced as webinars and include poultry, land care, marketing, flowers, and more.

**National Weather Service Alaska Climate Outlook Briefings, Fridays at 12 pm AKST.** This monthly webinar series by the Alaska Climate Assessment and Policy Center reviews recent climate and looks ahead at future climate projections. The next webinar is on **20 November**.

**VAWS: National Weather Service Alaska Sea Ice Program Operations, 24 November 11 am-12 pm AKST.** This webinar will look at the evolution of the unique Alaska Sea Ice program, from how it started, to what it currently does and hopes to do in the future.

**Forest Gaps and Western White Pine Regeneration, 2 December 9-10 am PST.** The webinar will discuss forest openings and seedling growth in western white pine restoration, including a landscape silvicultural perspective that allows managers flexibility and strategic options for restoring white pines without sacrificing other management objectives. Experts from the Forest Service Rocky Mountain Research Station and northern Idaho will present and lead lengthy Q & A.

A summary of recent research on the topic can be found here.

**Climate Impacts Group 25-Year Anniversary Lecture Series on Building Climate Resilience**

**3 December 6-7:30pm PST,** From Cliffs to Coasts: Stories of Building Climate Resilience

**27 January 5 pm PST,** Building Climate Resilience During COVID-19 Recovery

**30 March 5 pm PST,** The Next 25 Years: Building a Climate-Resilient Future

**Helping Farmers Help the Land Through Climate Smart Farming, 10 December 10-11 am PST.** Participants in this webinar from the Natural Resources Conservation Service will learn about how the climate has changed in their area and what that means for farmers and ranchers. The presentation will focus on four key ways producers can adapt to changes through vulnerability assessment, soil health, biodiversity, and greenhouse gas emission reductions.

**Current Topics in Forest Health 2020, 11 & 18 December 9 am-12 pm PST.** University of Idaho Extension is hosting a two-part webinar series that covers issues relevant to Inland Northwest forest health. Topics include larch top kill, western white pine blister rust, vole and gopher management, and much more. Register here.

**Pacific Northwest Drought & Climate Outlook, 14 Dec 11 am PST.** The Pacific Northwest Drought Early Warning System hosts a series of region-specific drought and climate outlook webinars to provide timely information on current drought status and impacts, a preview of current and developing climatic events, and special topics.

Did you miss the October DEWS webinar? Check out a recording here.

**OSU Extension Post-Fire Webinar Series (recorded).** Find several sessions that provide essential information for those affected by wildfire. Webinars cover hazard awareness, how to assess tree mortality, reforestation considerations, and tax issues. Find the recorded sessions here.

**Monthly Biochar Webinar Series (recorded).** This monthly series from the US Forest Service covers multiple bio-char related topics, including forest-to-farm application, economics, and recent innovations. Find the recorded sessions here.

**OR/WA Water Year 2020 Recap & 2021 Outlook Meeting (recorded).** Find links to presentations given at both days of the meeting that cover new tools and address drought, infrastructure, an outlook for 2021, and much more.

## Conferences & Meetings

**Society for Range Management 2021 Virtual Annual Meeting, 15-18 February.** The theme of the 2020 meeting is "new frontiers" and will highlight new ideas and endeavors occurring on rangelands across the globe. An official agenda is forthcoming and submissions for abstracts for oral, poster and field findings presentations has been **extended to 4 December**.

**Idaho Water Quality Workshop, 9-11 February.** This online meeting will feature presentations on nonpoint source pollution, PFAS (Perfluorooctanoic acid) in groundwater, and fish bioassessment.

**Northwest Climate Conference, 6-8 April.** This conference connects a diverse community of practitioners, scientists, tribal communities, and decision-makers to share knowledge and best practices related to climate change science, impacts, and adaptation across the Northwest. Topics include drought, wildfire, extreme events, coastal flooding, human and ecosystem health, and resiliency planning. **Abstracts are due by 27 November.**

## Funding Opportunities

**Department of Energy: Energy Infrastructure Deployment of Tribal Lands 2020.** The Office of Indian Energy Policy and Programs is soliciting applications from Tribal Nations, as well as Alaska Native Regional Corporations and Village Corporations, Intertribal Organizations, and Tribal Energy Development Organizations, to install or upgrade energy production, storage, and delivery systems. **The application due date has been extended to 10 December at 5 pm EST.**

**NW CASC Funding Opportunity for Tribal Climate Adaptation Research Projects.** The Northwest Climate Adaptation Science Center (NW CASC) is seeking statements of interest for tribal climate adaptation research projects focusing on management of: aquatic resources; at-risk species and habitats; invasive species and diseases; and forest ecosystems and human dimensions of climate adaptation within Idaho, Oregon, Washington or Northern California. Federally recognized Tribes and Tribal organizations or partners of these entities may submit statements of interest, which are **due 17 December**.

**The Community Forest and Open Space Conservation Program** provides an opportunity for local governments, nonprofits, and federally recognized Indian tribes to establish permanent tenure of community forests that will provide public recreation, environmental and economic benefits, and forest-based educational programs. Applicants are encouraged to work with their Forest Service Region and must also send an email to [SM.FS.CFP@usda.gov](mailto:SM.FS.CFP@usda.gov) to confirm submission. **Applications due 11 January 2021.**

**Organic Agriculture Research and Extension Initiative (OREI).** This program funds projects that will enhance the ability of farmers, ranchers, and processors who have already adopted organic standards to physical and market high-quality organic agricultural products. Priority concerns include biological, physical, and social sciences, including economics. Projects should emphasize practical, research-based information, education, and outreach for whole farm planning. **Applications due 14 January 2021.**

**Federal Emergency Management Agency (FEMA) Building Resilient Infrastructure and Communities (BRIC) program.** This grant program is for states, local communities, Tribes and territories for pre-disaster mitigation activities. This pre-disaster hazard mitigation program replaces the existing pre-disaster mitigation program and will provide \$500 million for mitigation planning and projects nationwide. **Applications are due 29 January.**

**2021 Wood Innovations Grant Program and 2021 Community Wood Energy and Wood Innovation Grant Program.** The Forest Service and its partners are creating new opportunities for innovative wood products which contribute to diversified rural economies and support sustainable forest management. **Applications are due 20 January and 3 February, respectively.**

**Agriculture and Food Research Initiative - Foundational and Applied Science Program.** Grant funds are available in six priority areas which include plant or animal health, production, and products; food safety, nutrition, and health; bioenergy, natural resources, and environment; agriculture systems and technology; and agriculture economics and rural communities. Research-only, extension-only, and integrated research, education and/or extension projects are eligible. **Applications due 29 July.**

To receive the USDA Northwest Climate Hub monthly newsletter via email, sign up by clicking on this box and providing your contact information and areas of interest on the form.

To unsubscribe email [holly.prendeville@usda.gov](mailto:holly.prendeville@usda.gov)